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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,305	12/28/2001	Justin Falconer Chapweske	4110-4002US1	8199

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EXAMINER

HOSSAIN, TANIM M

ART UNIT	PAPER NUMBER
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2145

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/033,305

Applicant(s)

CHAPWESKE, JUSTIN
FALCONER

Examiner

Tanim Hossain

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-136 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-136 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/17/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114 After Allowance

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on January 17, 2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-136 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nair (U.S. 2004/0193900) in view of Byers, et al. ("Accessing Multiple Mirror Sites in Parallel: Using Tornado Codes to Speed Up Downloads") in further view of Francis ("Yallcast: Extending the Internet Multicast Architecture").

As per claim 1, Nair teaches a network encoding method of using a computer for transferring data, comprising: sending a request for data from a requesting computer to a targeted computer system (paragraphs 0009-0010); accessing at the targeted computer system a look-up list to identify other computers that have previously requested and downloaded at least a portion of the requested data (0009-0010; where the population of other nodes' lists have been done by requesting and receiving data in a peer network); sending requests to the identified computers, wherein upon receiving the requests, the identified computers have received the requested data (0009-0010); encoding the data at the identified computers in response to the requests (0045); sending the data from the identified computers to the requesting computer prior to receiving the remaining portions of the data (0009-0010; where the receiving computer has not yet received the remaining portions of the data); receiving, with the requesting computer, the encoded data (0045); decoding the received encoded data (0045); and saving the requested data in memory (0009-0010). Nair does not specifically teach the reception of different encoded partial portions of a data file from different computers. Byers teaches independently encoding different partial portions of the data at the identified computers in response to requests, where the identified computers have received different partial portions of the data; sending the encoded partial portions of the data from the identified computers to the requesting computer (page 3, column 1, lines 39-49; column 2, lines 37-52); receiving, with the requesting computer, the different partial portions of the encoded data from at least two of the sending computers (page 3, column 1, lines 39-49; column 2, lines 37-52); and decoding the received encoded data to recreate the requested data from the different partial portions (page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36). It would

have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to download files piece-by-piece from a plurality of sources, and to include the independent encoding, as taught by Byers in the system of Nair. The motivation for doing so lies in the fact that having the ability to have multiple sources from which to partially download would allow a boost in transmission speed, because the file would then come from a plurality of sources, rather than just one, for example, and independently encoding the portions of the file would allow for faster transmittal, leading to further efficiency of the system. Both inventions are from the same field of endeavor, namely the efficient transmission of data from peer to peer. Nair-Byers does not specifically teach the simultaneous sending and receiving of data, where the sending computers send the requested data, and complete the download of the remaining portions of data. Francis teaches sending data from identified computers to the requesting computer and completing the download of the remaining portions of data with the identified computers (page 38, lines 27-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to include the ability to simultaneously transmit and receive packets to complete download of a file at a sender, while sending packets, so that a receiving peer can also receive packets, as taught by Francis in the system of Nair-Byers. The motivation for doing so lies in the fact that the simultaneous uploading and downloading of packets would greatly speed the transmittal of data, leading to further efficiency of file transfers, for example. All inventions are from the same field of endeavor, namely the efficient transmittal of data from peer to peer.

As per claim 2, Nair-Byers-Francis teaches the method of claim 1, wherein data transmission is accomplished from the one or more computers over a peer-to-peer network,

wherein the other computers that previously requested and received at least a portion of the requested data are peers with the requesting computer (Nair: 0009-0010).

As per claim 3, Nair-Byers-Francis teaches the method of claim 1, wherein encoded packets are relayed (Nair: 0045).

As per claim 4, Nair-Byers-Francis teaches the method of claim 1, but does not specifically teach that the look-up list is populated with nodes based on data transfer rates. Official Notice is taken that the sorting of hits by transfer speed is a well known in the art of peer-to-peer networking. It would therefore be obvious to one of ordinary skill in the art at the time of the invention to include such a display based on transfer rates, to allow for sorting by what would possibly yield the fastest download rate.

As per claim 5, Nair-Byers-Francis teaches the method of claim 1, wherein the look-up list is populated with nodes based on data types stored within the nodes (Nair: 0038).

As per claim 6, Nair-Byers-Francis further teaches that the lookup list is a mesh list that records which partial portions of the data each of the other computers have received (Francis: page 12); and that accessing the look-up list to identify the other computers includes selecting the identified other computers includes selecting the other computers based on the record of which partial portions of the data each of the other computers have received (Nair: 0009, 0010; Francis: page 12).

As per claim 7, Nair-Byers-Francis further teaches that encoding the different partial portions of the data at the identified computers comprises re-encoding each of the different partial portions at the identified computers using an acknowledgement independent equalized data packet encoding scheme that is a FEC encoding, and wherein decoding the received

encoded data includes decoding the FEC encoded different partial portions from the identified computers to recreate the requested data (Byers: page 1, column 2, lines 35-40).

As per claim 8, Nair-Byers-Francis further teaches that the data that is to be encoded is segmented before encoding (Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36).

As per claim 9, Nair-Byers-Francis further teaches that the received encoded packets are decoded, and then re-encoded for further transmission upon request (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38).

As per claim 10, Nair-Byers-Francis teaches a method of using a computer for transferring data, comprising: receiving a request for data from a computer (Nair: 0009, 0010); accessing a look-up list to identify any peer computers that have previously downloaded at least a portion of the request data (Nair: 0009, 0010); sending requests to the identified other peer computers, wherein the identified peer computers have downloaded different partial portions of the requested data upon receiving the requests (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); encoding the different partial portions of the requested data at the identified computers, wherein the data is encoded using an acknowledgement independent equalized data packet encoding system (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); and sending the encoded different partial portions of the data from at least two different ones of the peer computers to the requesting computer prior to receiving all of the data

at the identified peer computers (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38).

Claims 11-25 are rejected under Nair-Byers-Francis on the same bases as claims 2-9, as the instant claims disclose the same limitations as the earlier corresponding claims.

As per claim 26, Nair-Byers-Francis teaches a method of using a computer for dynamically transferring data, comprising: sending a request for data to a targeted computer capable of servicing the request (Nair: 0009, 0010); receiving acknowledgement independent equalized data packets from at least two different sending computers that have previously downloaded different portions of the data from the targeted computer, wherein the sending computers send the downloaded different portions of the data and complete downloading of the remaining portions of the data (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); decoding the received encoded data; and saving the decoded data in memory (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38).

Claims 27-34 are rejected under Nair-Byers-Francis on the same bases as claims 2-10 as the instant claims disclose similar limitations as the earlier corresponding claims.

As per claim 35, Nair-Byers-Francis teaches a system for transferring data, comprising: means to send a request for data from a requesting computer to a targeted computer (Nair: 0009, 0010); means to access a look-up list to identify other computers that have previously downloaded at least a portion of the requested data (Nair: 0009, 0010); means to send requests

to the identified computers, wherein the identified computers have only downloaded different partial portions of the requested data from the targeted computer system (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); means to send the different partial portions of the data from the identified computers to the requesting computer and complete the downloading of the remaining portions of the data within the identified computers (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); means to receive the different partial portions of the data from identified computers; means to save the data in memory (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38). Nair-Byers-Francis does not specifically teach that the downloading of file portions take place from a specific computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the limitation of having a centralized computer from which the peers download the file portions, as having a centralized information server is well known in the art. The motivation for doing so lies in the fact that having a specific computer would enable transmittal of enterprise-specific, or classified information, which would allow for the invention's use within an enterprise.

Claims 36-43 are rejected under Nair-Byers-Francis on the same bases as claims 2-10 as the instant claims disclose similar limitations as the earlier corresponding claims.

Claims 44-51 are rejected under Nair-Byers-Francis on the same bases as claims 1-10 as the instant claims disclose similar limitations as the earlier corresponding claims.

As per claim 52, Nair-Byers-Francis teaches a system for transferring data from a set of peer computers to a requesting computer, comprising: means to receive at a source computer a request to download data, wherein the source computer maintains a list of peer computers that have previously downloaded at least a portion of the data (Nair: 0009, 0010; where the building of lists constitutes a listing of what has been downloaded); means to encode the data at the peer computers using an acknowledgement independent equalized data packet encoding scheme at the direction of the source computer (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38); means to send the encoded data from the peer computers to a requesting computer and complete the download of the remaining portions of data (Nair: 0009-0010; Byers: page 3, column 1, lines 39-49; column 2, lines 37-52; page 4, column 1, lines 40-53; page 8, column 1, lines 27-36; Francis: pages 12 and 38).

Claims 53-59 are rejected under Nair-Byers-Francis on the same bases as claims 1-10 as the instant claims disclose similar limitations as the earlier corresponding claims.

Claim 60 is rejected under Nair-Byers-Francis on the same basis as claim 26, as claim 60 recites similar limitations to those of claim 26.

Claims 61-136 are rejected under Nair-Byers-Francis on the same bases as claims 1-17 as the instant claims disclose similar limitations as the earlier corresponding claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 571/272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571/272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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